

PRIORITY HABITAT FACTSHEET



Sunset over the river Stour near Dedham (Nick Rowland), Kingfisher (Steve Roach), Norfolk hawker (Gary Last).

Rivers and Streams

All natural and near-natural running waters ranging from fast flowing streams to meandering rivers.

Numerous factors influence their ecological characteristics, for example geology, topography, substrate, gradient, flow rate, altitude, channel profile, climate, catchment features.

Additionally most river systems change greatly in character as they flow from their source to their mouth.

IMPORTANCE FOR WILDLIFE

Rivers and streams are so diverse that often the only thing they have in common is flowing water. From deeply incised stream valleys (often called gullies) to broad estuaries they provide a huge variety of habitats and micro-habitats. They act as important wildlife corridors, connecting habitats together along their course, and are home to a wide variety of important species, including otter, water vole, water shrew, white-clawed crayfish and Desmoulin's whorl snail.



IMPORTANT ASSOCIATED SPECIES

Mammals

Daubentons Bat *Myotis daubentonii**
Soprano Pipistrelle Bat *Pipistrellus pygmaeus*
Whiskered Bat *Myotis mystacinus**
Pipistrelle Bat *Pipistrellus pipistrellus**
Nathusius' Pipistrelle Bat *Pipistrellus nathusii**
European Otter *Lutra lutra*
Water Vole *Arvicola terrestris*
Water shrew *Neomys fodiens**

Fish

European Eel *Anguilla anguilla*
River Lamprey *Lampetra fluviatilis*
Spined Loach *Cobitis taenia*

Reptiles and Amphibians

Great Crested Newt *Triturus cristatus*

Beetles

Scarce Four-dot Pin-palp *Bembidion quadripustulatum*

Crustaceans

White-clawed Crayfish *Austropotamobius pallipes*

Dragonflies

Norfolk or Green-eyed Hawker *Aeshna isosceles*

Moths

Crescent Moth *Celaena leucostigma* (riverside margins)**

Molluscs

Depressed River Mussel *Pseudanodonta complanata*
Desmoulin's Whorl Snail *Vertigo moulinsiana*
Swollen Spire Snail *Mercuria similis*

Plants

Tubular Water-dropwort *Oenanthe fistulosa*
Native Black Poplar *Populus nigra* spp *betulifolia**
River Water-dropwort *Oenanthe fluviatilis*

*Suffolk Priority species

**Priority – Research Only. Common and widespread, but rapidly declining.



Images: Top – Pipistrelle bat (Gilles San Martin). Bottom, clockwise from bottom left – Otter (Natural England/ Allan Drewitt), Avocet (Edwyn Anderton), White clawed crayfish (www.fotoARION.ch), Crescent moth (Paul Kitchener), Daubenton's bat (Ján Svetlík), Desmoulin's whorl snail (Gilles San Martin) .

FACTORS AFFECTING HABITAT IN SUFFOLK

- Excessive water abstraction contributes to low flows resulting in the drying out of upper sections and riparian zones, accumulation of silt and changes in the aquatic vegetation structure.
- Physical modification of rivers, dredging and lowering river beds and confining them to specific channels for flood defence, drainage, navigation, or other purposes.
- Pollution resulting in enrichment and de-oxygenation leading to excessive growths of blanket-weed
- Intensive fisheries management with regular 'weed' cutting in the channel; fencing off and mowing strips along the bank; infilling and stabilisation of banks; and removal of unwanted fish species.



HABITAT MANAGEMENT ADVICE

- Maintain a mosaic of habitats such as fens, water meadows, unimproved grassland and carr nearby to increase species diversity.
- Management plans should take into account the needs of important species. Some species found in winterbournes need a wet and dry phase over the yearly cycle.
- Avoid works that eliminates side channels. Avoid over-abstraction that can reduce the flow of water, or cause them to dry up completely in summer, threatening mayfly populations.
- Avoid the discharge of nutrients that promote growth of algal blooms and causes eutrophication. Avoid diffuse pollution that threatens the survival of rare species or diminishes biodiversity.
- Steep banks and hard profiles are damaging to many aquatic species. Natural, sloping margins with soft sediment provides a greater range of suitable habitats.
- Trampling of margins by cattle can help maintain shallow sloping profiles and areas of bare muddy ground, but avoid excessive trampling that can result in over-siltation.
- Retain aquatic, marginal and riverbank vegetation to provide shelter and emergence sites. If fishing areas are cut in the vegetation their location should be rotated annually. Riverside trees are important to provide shelter for rare and nationally scarce species
- Dredging should be carried out just from one side of the bank, over short stretches and in rotation to allow recolonisation. This also minimises machinery damage to the bank.
- Naturally accumulating silt along river margins should be left. Only short sections (20-30 metres) should be cleared at a time to minimise the impact on plants and animals.
- Retain dead wood both in and out of the water to provide niche habitats. Fallen trees can help reduce erosion of banks and slow the flow of water.

Tubular water droplet (Jeremy Halls).



Vision for Suffolk

1. Improve knowledge of extent and quality of rivers and streams.
2. Maintain the existing extent of rivers and streams to ensure no net loss.
3. Re-create rivers and streams as opportunities arise.
4. Encourage the restoration and improvement of degraded rivers and streams.



WHERE TO FIND FURTHER INFORMATION

Buglife – advice on managing BAP habitats

- <https://www.buglife.org.uk/resources/habitat-management/chalk-rivers>

Buglife – Notable invertebrates associated with rivers and streams (pdf)

- <https://cdn.buglife.org.uk/2019/07/0520Notable20invertebrates20associated20with20chalk20rivers.pdf>

JNCC Habitat Description (pdf)

- <https://data.jncc.gov.uk/data/01d6ab5b-6805-4c4c-8d84-16bfebe95d31/UKBAP-BAPHabitats-45-Rivers-2011.pdf>

MAGIC website – interactive mapping information including designations • <https://magic.defra.gov.uk/>

Making Space for Nature, a Review of England's Wildlife Sites and Ecological Network 16 Sep 2010.

- Chaired by Professor Sir John Lawton CBE FRS. Defra website (pdf) • <https://webarchive.nationalarchives.gov.uk/ukgwa/20130402151656/http://archive.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf>

Natural Environment White Paper June 2011 – *The Natural Choice: securing the value of nature* (pdf)

- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/228842/8082.pdf

Suffolk Wildlife Trust Habitats Explorer • <https://www.suffolkwildlifetrust.org/habitats/freshwater/rivers>

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